

|                                      |                             |                                      |
|--------------------------------------|-----------------------------|--------------------------------------|
| Mr. Michael T. Davis<br>Pre-Calculus | <b>WITHOUT A CALCULATOR</b> | 1.3 & 1.4 QUIZ<br>September 16, 2015 |
| Name:                                |                             |                                      |

1. Simplify  $27^{\frac{1}{3}} =$

2. Simplify  $16^{\frac{3}{4}} =$

3. Simplify  $\frac{4^9 x^2}{4^7 x^5} =$

4. Simplify & write the answer without any negative exponents  $\frac{39y^8}{13y^3} =$

5. Simplify & write the answer without any negative exponents  $\frac{x}{x^{-2}} =$

6. Simplify  $(4xy^2)^3 =$

7. Simplify  $6x^4 y^3 + x^4 y^3 =$

8. Multiply & Simplify  $(x+4)(x-4)$

9. Square the binomial  $(x+5)^2$

10. Multiply & Simplify  $(2x+7)(x-3)$

11. Factor  $3x^2 - 11x - 4$

12. Solve  $(3x-1)(x+7)=0$

13. Solve  $2x^2 - 12x = 0$

14. Solve  $x^2 + 11x + 24 = 0$

Optional Extra Credit: Solve  $8x^2 + 14x - 15 = 0$